Attorney's Docket No.: 07039-331001 / MMV-02-039

Applicant: Lieping Chen et al. Serial No.: 10/072,622 Filed: February 7, 2002

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Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

- 1. (Currently Amended) A purified polypeptide consisting of:
 - (a) a variant of
 - (i) a wild-type ICOS amino acid sequence consisting of an extracellular domain of wild-type ICOS, the wild-type ICOS extracellular domain being SEQ ID NO:10 or SEQ ID NO:9, or
 - (ii) a wild type ICOS amino acid sequence consisting of a fragment of at least 15 amino acids of the extracellular domain,

the variant:

consisting of an amino acid sequence that differs by one or more amino acid substitutions from, but is at least 85% homologous to, its corresponding wild-type ICOS amino acid sequence; and

having altered affinity for human B7-H2 compared to its corresponding wild-type ICOS amino acid sequence, wherein said affinity for human B7-H2 is increased by at least 10% relative to the affinity of the corresponding wild-type ICOS amino acid sequence for human B7-H2; or

(b) the variant of (a) and: (I) a peptide sequence unrelated to ICOS attached to the N-terminus of the variant of (a); (II) a peptide sequence unrelated to ICOS attached to the C-terminus of the variant of (a); or (III) a peptide sequence unrelated to ICOS attached to the N-terminus of the variant of (a) and a <u>second</u> peptide sequence unrelated to ICOS attached to the C-terminus of the variant of (a).

- 2. (Cancelled)
- 3. (Previously Presented) The purified polypeptide of claim 1, wherein the variant differs from its corresponding wild-type amino acid sequence at a position corresponding to amino acid 76 of SEQ ID NO:12.

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4. (Previously Presented) The purified polypeptide of claim 3, wherein, in the variant, the amino acid at the position corresponding to said amino acid 76 of SEQ ID NO:12 is glutamine.

- 5. (Previously Presented) The purified polypeptide of claim 1, wherein the variant differs from its corresponding wild-type amino acid sequence at a position corresponding to amino acid 52 of SEQ ID NO:12.
- 6. (Previously Presented) The purified polypeptide of claim 5, wherein, in the variant, the amino acid at the position corresponding to said amino acid 52 of SEQ ID NO:12 is serine.
- 7. (Previously Presented) The purified polypeptide of claim 1, wherein said variant is capable of inhibiting T cell activation in a T cell proliferation assay.
- 8. (Withdrawn) An isolated nucleic acid molecule comprising a nucleic acid sequence that encodes the polypeptide of claim 1.
- 9-11. (Cancelled)
- 12. (Withdrawn Previously Presented) A method for inhibiting T cell activation, comprising contacting an antigen-presenting cell with the purified polypeptide of claim 1.
- 13. (Withdrawn Previously Presented) The method of claim 12, wherein said variant comprises a Ser76Glu mutation.
- 14. (Withdrawn Previously Presented) The method of claim 12, wherein said variant comprises a Lys52Ser mutation.
- 15. (Withdrawn Previously Presented) A method for inhibiting T cell activation in a subject, comprising administering to the subject an amount of the purified polypeptide of claim 1 that is capable of inhibiting a T cell response in said subject.

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16. (Withdrawn - Previously Presented) The method of claim 15, wherein said variant comprises a Ser76Glu mutation.

- 17. (Withdrawn Previously Presented) The method of claim 15, wherein said variant comprises a Lys52Ser mutation.
- 18. (Withdrawn) The method of claim 15, wherein said subject has an autoimmune disease.
- 19. (Withdrawn) The method of claim 18, wherein said subject has rheumatoid arthritis.
- (Withdrawn) The method of claim 18, wherein said subject has systemic lupus erythematosus.
- 21. (Withdrawn) The method of claim 18, wherein said subject has diabetes mellitus.
- 22. (Withdrawn) The method of claim 15, wherein said subject is a transplant recipient.
- 23. (Withdrawn) A method for making an ICOS polypeptide, comprising culturing the cell of claim 11 and isolating said ICOS polypeptide from said culture.
- 24. (Previously Presented) The purified polypeptide of claim 1, wherein the peptide sequence unrelated to the ICOS or the second peptide sequence unrelated to ICOS is a blocking agent that facilitates survival of the polypeptide *in vivo*.
- 25. (Previously Presented) The purified polypeptide of claim 1, wherein the peptide sequence unrelated to the ICOS or the second peptide sequence unrelated to ICOS is a tag amino acid sequence.
- 26. (Currently Amended) The purified polypeptide of claim 1, wherein the peptide sequence unrelated to the ICOS or the second peptide sequence unrelated to ICOS is an immunoglobulin Fe fragment CH2-CH3 sequence.
- 27. (Canceled)